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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------------|
| 10/720,095 | 11/25/2003 | Naoki Mori | Q78622 | 4866 |
| 23373 7590 06/27/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | EXAMINER BOKHARI, SYED M | |
| | | | ART UNIT 2609 | PAPER NUMBER |
| | | | MAIL DATE 06/27/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,095

Applicant(s)

MORI ET AL.

Examiner

Syed Bokhari

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11/25/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-8 is/are rejected.
- 7) ☐ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :10/13/2006, 05/09/2006, 12/22/2005 and 11/25/2003.

DETAILED ACTION

Claim Objections

1. Claims 2 and 4 are objected to under 37 CFR 1.75 because of the following informalities:

For claim 2 line 11, the occurrence of "a QoS service content" refers back to "a QoS service content" previously cited in line 10 of claim 1, if it is true, it is suggested to applicant to change "a QoS service content" to --the QoS service content--.

For claim 4, "a QoS service content" (line 6) and "a recorded user's authentication information" (line 12) should be changed to --the QoS service content-- and --the user's authentication information respectively--.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2609

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 1 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. (US 2005/0286489 A1) in view of Li et al. (USP 6,654,363 B1).

For claim 1 and 4, Shin et al. discloses a wireless LAN base station connected to the wireless LAN network (see paragraph 0014 lines 5-6 on page 1 in Disclosure of Invention); and one or a plurality of wireless LAN terminals connected to the wireless LAN base station via the wireless LAN network (see paragraph 0027 lines 1-5 on page 2 in Best Mode for Carrying out the Invention); means for receiving information for identifying the wireless LAN terminal (see paragraph 0016 lines 3-12 on page 2 in Disclosure of Invention); a user whose authentication is required from a server via a communication network (see paragraph 0014 lines 5-6 on page 1 in Disclosure of Invention); the server being configured to, when the user of the wireless LAN network requires a user's

authentication from the wireless LAN terminal, authenticate the user of the wireless LAN network whose authentication is required based on a recorded user's authentication information and notify the wireless LAN base station of the information (see paragraph 0014 lines 5-18 on page 1 in Disclosure of Invention); means for receiving information for identifying the wireless LAN terminal from the wireless LAN terminal via the wireless LAN network (see paragraph 0013 lines 1-8 on page 1 in Disclosure of Invention) and means for requiring the user's authentication the wireless LAN base station (see paragraph 0033 lines 1-6 on page 1 in Best Mode for Carrying out the Invention).

Shin et al. discloses all the subject matter of the claimed invention with the exception of (i) the QoS control system and the QoS service content including a priority information, (ii) means for carrying out priority control in accordance with the priority information of the QoS service content from the server, if the information for identifying the wireless LAN terminal from the wireless LAN terminal corresponds to that from the server, (iii) means for receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iv) means for carrying out the priority control in accordance with the priority information. Li et al. from the same or similar field of endeavor teaches of the QoS control system and the QoS service content including a priority information (see column 2 lines 23-30 in Summary of the Invention); means for carrying out priority control in accordance with the priority information of the QoS service content from the server, if the information for

identifying the wireless LAN terminal from the wireless LAN terminal corresponds to that from the server (see column 3 lines 66-67 and column 4 lines 1-15 in Detailed Description of the Preferred Embodiments); means for receiving the priority information of the QoS service content notified from the server via the wireless LAN base station (see column 8 lines 41-47 in Wireless QoS Management from Basestation Prospective) and means for carrying out the priority control in accordance with the priority information (see column 9 lines 6-16 in Wireless QoS Management from Basestation Prospective).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to use of the same IP QoS management mechanism for (i) means for carrying out priority control in accordance with the priority information of the QoS service content from the server, if the information for identifying the wireless LAN terminal from the wireless LAN terminal corresponds to that from the server, (ii) means for receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii) means for carrying out the priority control in accordance with the priority information as taught by Li et al. in the wireless system of Shin et al. The IP QoS management mechanism for QoS service content that include the priority information and to carry out priority control as taught by Li et al. can be modified/implemented in the wireless system of Shin et al. by adding this protocol in the existing protocol stack at base station and user terminal. The IP QoS management mechanism enables wireless networks to perform resource allocation on demand to meet

QoS requirements of IP services like priority, path bandwidth, latency etc. The motivation for adding IP QoS management mechanism is to carrying out priority control in accordance with the priority information of the QoS service content.

For claim 5, Shin et al. discloses a wireless LAN terminal for communicating with a wireless LAN base station via a wireless LAN network (see paragraph 0027 lines 1-5 on page 2 in Best Mode for Carrying out the Invention); means for requiring a user's authentication to the wireless LAN base station (see paragraph 0033 lines 1-6 on page 1 in Best Mode for Carrying out the Invention); wherein the wireless LAN base station receives information for identifying the wireless LAN terminal (see paragraph 0016 lines 3-12 on page 2 in Disclosure of Invention); a user whose authentication is required from a server via a communication network (see paragraph 0015 lines 1-2 on page 1 and lines 1-4 on page 2 in Disclosure of Invention) and the server is configured to authenticate the user of the wireless LAN network whose authentication is required based on a recorded user's authentication information and notify the wireless LAN base station of the information (see paragraph 0014 lines 5-18 on page 1 in Disclosure of Invention).

Shin et al. discloses all the subject matter of the claimed invention with the exception of (i) the QoS service content and the QoS service content include a priority information, (ii) means for receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii)

means for carrying out the priority control in accordance with the priority information, if the information for identifying the wireless LAN terminal from the server is correct. Li et al. from the same or similar field of endeavor teaches of the QoS service content, the QoS service content including a priority information (see column 2 lines 23-30 in Summary of the Invention); means for receiving the priority information of the QoS service content notified from the server via the wireless LAN base station (see column 8 lines 41-47 in Wireless QoS Management from Basestation Prospective) and means for carrying out the priority control in accordance with the priority information, if the information for identifying the wireless LAN terminal from the server is correct (see column 9 lines 6-16 in Wireless QoS Management from Basestation Prospective).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to use of the same IP QoS management mechanism for (i) the QoS service content that includes a priority information, (ii) means for receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii) means for carrying out the priority control in accordance with the priority information, if the information for identifying the wireless LAN terminal from the server is correct as taught by Li et al. can be modified/implemented in the wireless system of Shin et al. by adding this protocol in the existing protocol stack at base station and user terminal. The IP QoS management mechanism enables wireless networks to perform resource allocation on demand to meet QoS requirements of IP services like priority, path

bandwidth, latency etc. The motivation for adding IP QoS management mechanism is to carrying out priority control in accordance with the priority information of the QoS service content.

For claim 6, Shin et al. disclose the method of a wireless LAN network including a wireless LAN base station and one or a plurality of wireless LAN terminals to be connected to the wireless LAN base station, the method comprising the steps (see paragraph 0027 lines 1-5 on page 2 in Best Mode for Carrying out the Invention); performing a first step by a server connected to the wireless LAN base station via the wireless LAN network, comprising the steps of authenticating a user of the wireless LAN network (see paragraph 0015 lines 1-2 on page 1 and lines 1-4 on page 2 in Disclosure of Invention); authenticating a user of the wireless LAN network whose authentication is required based on a recorded user's authentication information, when the user of the wireless LAN network requires a user's authentication from the wireless LAN terminal (see paragraph 0014 lines 5-18 on page 1 in Disclosure of Invention); notifying the wireless LAN base station of information for identifying the wireless LAN terminal (see paragraph 0016 lines 3-12 on page 2 in Disclosure of Invention); a user whose authentication is required from the server via the communication network (see paragraph 0015 lines 1-2 on page 1 and lines 1-4 on page 2 in Disclosure of Invention); performing a second step by the wireless LAN base station comprising the steps of receiving the information for identifying the wireless LAN

terminal (see paragraph 0013 lines 1-8 on page 1 in Disclosure of Invention); receiving information for identifying the wireless LAN terminal from the wireless LAN terminal via the wireless LAN network (see paragraph 0016 lines 3-12 on page 2 in Disclosure of Invention) and requiring a user's authentication the wireless LAN base station (see paragraph 0033 lines 1-6 on page 2 in Best Mode for Carrying out the Invention).

Shin et al. discloses all the subject matter of the claimed invention with the exception of the methods (i) carrying out priority control in accordance with the priority information of the QoS service content from the server, if the information for identifying the wireless LAN terminal from the wireless LAN terminal corresponds to that from the server (ii) receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii) carrying out the priority control in accordance with the priority information. Li et al. from the same or similar field of endeavor teaches of the method of carrying out priority control in accordance with the priority information of the QoS service content from the server, if the information for identifying the wireless LAN terminal from the wireless LAN terminal corresponds to that from the server (see column 3 lines 66-67 and column 4 lines 1-15 in Detailed Description of the Preferred Embodiments); receiving the priority information of the QoS service content notified from the server via the wireless LAN base station (see column 8 lines 41-47 in Wireless QoS Management from Basestation Prospective) and carrying out the priority control in accordance with

Art Unit: 2609

the priority information (see column 9 lines 6-16 in Wireless QoS Management from Basestation Prospective).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to use of the same IP QoS management mechanism method for (i) carrying out priority control in accordance with the priority information of the QoS service content from the server, if the information for identifying the wireless LAN terminal from the wireless LAN terminal corresponds to that from the server (ii) receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii) carrying out the priority control in accordance with the priority information for carrying out the priority control in accordance with the priority information as taught by Li et al. in the wireless system of Shin et al. The IP QoS management mechanism method for QoS service content that includes the priority information and to carry out priority control as taught by Li et al. can be modified/implemented in the wireless system of Shin et al. by adding this function in the existing protocol stack at base station and user terminal. The IP QoS management mechanism method enables wireless networks to perform the steps of resource allocation on demand to meet QoS requirements of IP services like priority, path bandwidth, latency etc. The motivation for adding IP QoS management mechanism method is to carrying out priority control in accordance with the priority information of the QoS service content.

For claim 7, Shin et al. discloses the wireless LAN network including the wireless LAN base station and one or a plurality of wireless LAN terminals to be connected to the wireless LAN base station (see paragraph 0027 lines 1-5 on page 2 in Best Mode for Carrying out the Invention); the steps of receiving authentication request from the wireless LAN terminal (see paragraph 0015 lines 1-2 on page 1 and lines 3-4 on page 2 in Disclosure of Invention); adding the received authentication request to information with respect to the wireless LAN base station (see paragraph 0014 lines 12-15 on page 1 in Disclosure of Invention); transmitting the added authentication request to a server, wherein the server is connected to the wireless LAN base station via the wireless LAN network (see paragraph 0014 lines 15-18 on page 1 in Disclosure of Invention); the server is configured to authenticate a user of the wireless LAN network whose authentication is required based on a recorded user's authentication information and to notify the wireless LAN base station of information for identifying the wireless LAN terminal (see paragraph 0014 lines 5-18 on page 1 in Disclosure of Invention); a user whose authentication is required from a server via a communication network (see paragraph 0015 lines 1-2 on page 1 and lines 1-4 on page 2 in Disclosure of Invention); and if the server does not authenticate the user whose authentication is requested, transmitting the information indicating that the server fails to authenticate the user, to the wireless LAN terminal (see paragraph 0014 lines 17-19 on page 1 in Disclosure of Invention). Shin et al. discloses all the subject matter of the claimed invention with the

exception of the steps (i) a QoS control program for enabling a computer of wireless LAN base station to execute a QoS control method of a wireless LAN network, (ii) the QoS service content includes a priority information and (iii) if the server authenticates the user whose authentication is requested, carrying out priority control with respect to the wireless LAN terminal defined by the information for identifying the wireless LAN terminal from the server in accordance with the priority information of the QoS service from the server.

Li et al. from the same or similar field of endeavor teaches of a QoS control program for enabling a computer of wireless LAN base station to execute a QoS control method of a wireless LAN network (see abstract lines 1-6); the QoS service content includes a priority information ((see column 2 lines 23-30 in Summary of the Invention) and if the server authenticates the user whose authentication is requested, carrying out priority control with respect to the wireless LAN terminal defined by the information for identifying the wireless LAN terminal from the server in accordance with the priority information of the QoS service from the server (see column 3 lines 66-67 and column 4 lines 1-15 in Detailed Description of the Preferred Embodiments).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to use of the same IP QoS management mechanism method for (i) a QoS control program for enabling a computer of wireless LAN base station to execute a QoS control method of a wireless LAN network (ii)) the QoS service content includes a priority information and (iii) if the server authenticates

the user whose authentication is requested, carrying out priority control with respect to the wireless LAN terminal defined by the information for identifying the wireless LAN terminal from the server in accordance with the priority information of the QoS service from the server as taught by Li et al. in the wireless system of Shin et al. The IP QoS management mechanism method for QoS service content that include the priority information and to carry out priority control as taught by Li et al. can be modified/implemented in the wireless system of Shin et al. by adding this function in the existing protocol stack at base station and user terminal. The IP QoS management mechanism enables wireless networks to execute a QoS control method of priority control like resource allocation on demand to meet QoS requirements and authentications. The motivation for adding IP QoS management mechanism method is to carrying out priority control in accordance with the priority information of the QoS service content.

For claim 8, Shin et al. discloses the wireless LAN network including the wireless LAN base station and one or a plurality of wireless LAN terminals to be connected to the wireless LAN base station (see paragraph 0027 lines 1-5 on page 2 in Best Mode for Carrying out the Invention); the steps of receiving authentication request from the wireless LAN terminal (see paragraph 0015 lines 1-2 on page 1 and lines 3-4 on page 2 in Disclosure of Invention); the steps of requiring a user's authentication to the wireless LAN base station, wherein the wireless LAN base station receives information for identifying the wireless LAN

terminal (see paragraph 0016 lines 3-12 on page 2 in Disclosure of Invention); a QoS service content of a user whose authentication is required from a server via a communication network (see paragraph 0015 lines 1-2 on page 1 and lines 1-4 on page 2 in Disclosure of Invention); the server is configured to authenticate the user of the wireless LAN network whose authentication is required based on a recorded user's authentication information and notify the wireless LAN base station of the information (see paragraph 0014 lines 5-19 on page 1 in Disclosure of Invention).

Shin et al. discloses all the subject matter of the claimed invention with the exception of the steps of (i) a QoS control program for enabling a computer of wireless LAN terminal to execute a QoS control method comprising the steps of the QoS service content includes a priority information, (ii) receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii) carrying out the priority control in accordance with the priority information, if the server authenticates the user whose authentication is requested. Li et al. from the same or similar field of endeavor teaches of the steps of a QoS control program for enabling a computer of wireless LAN terminal to execute a QoS control method comprising the steps of the QoS service content includes a priority information (see column 2 lines 23-30 in Summary of the Invention); receiving the priority information of the QoS service content notified from the server via the wireless LAN base station (see column 8 lines 41-47 in Detailed Description of the Preferred Embodiments) and carrying out the

priority control in accordance with the priority information, if the server authenticates the user whose authentication is requested (see column 9 lines 6-16 in Detailed Description of the Preferred Embodiments).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to use of the same IP QoS management mechanism for the steps of (i) a QoS control program for enabling a computer of wireless LAN terminal to execute a QoS control method comprising the steps of the QoS service content includes a priority information, (ii) receiving the priority information of the QoS service content notified from the server via the wireless LAN base station and (iii) carrying out the priority control in accordance with the priority information, if the server authenticates the user whose authentication is requested as taught by Li et al. in the wireless system of Shin et al. The IP QoS management mechanism for QoS service content that include the steps of QoS service content includes a priority information and to carry out priority control as taught by Li et al. can be modified/implemented in the wireless system of Shin et al. by adding this protocol in the existing protocol stack at base station and user terminal. The IP QoS management mechanism method for QoS service content that includes the priority information and to carry out priority control as taught by Li et al. can be modified/implemented in the wireless system of Shin et al. by adding this function in the existing protocol stack at base station and user terminal. The IP QoS management mechanism method enables wireless networks to perform steps to meet QoS requirements of IP services like priority,

Art Unit: 2609

path bandwidth, latency etc. The motivation for adding IP QoS management mechanism method is to carrying out priority control in accordance with the priority information of the QoS service content.

Allowable Subject Matter

5. Claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record but not relied upon is considered pertinent to applicant's disclosure. USP 6,697,627 B1 (Ueno), US 2002/0188562 A1 (Igarashi et al.), US 2003/0214929 A1 (Bichot et al.), US 2003/0185183 A1 (Lothia et al.) and US 2004/001109 A1 (Oishi).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Bokhari whose telephone number is (571) 270-3115. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



DANG T. TON
SUPERVISORY PATENT EXAMINER